

BUENOS AIRES, JANUARY 13 1997

HAVING REVISED section 42 of the National Constitution, Decree N° 952/96 modified by Decree N° 1620/96, Resolutions SC N° 57/96, 136/96, 183/96 and 25845/96, and Case Record CNT N° 12911/95, and

**CONSIDERING:**

That in order to fulfill the constitutional mandate of guaranteeing freedom of choice in the trade relationship, the NATIONAL EXECUTIVE POWER has established as an objective of this Department the drafting of the Plans which will guarantee the future competitive provision of telecommunications services.

That, to that end, Resolutions SC N° 57/96 and 136/96 have suspended the effects of the Plans adopted by Resolutions CNT N° 272/96 and 346/96 in order to prepare them for the future open and competitive market.

That Resolution N° 183/96 adopted the procedure prescribed in Section 44 of the Communications Public Hearings and Inquiry Documents General Rules, as the means for drafting the National Signaling Plan.

That through the aforementioned Resolution this Department has posed a series of questions related to the Plan, for the industry to answer within a pre-established term.

That, to that end, copies of the aforementioned Inquiry Document have been sent to the FEDERAL COMMUNICATIONS COUNCIL, TELECOM ARGENTINA STET FRANCE TELECOM S.A., TELEFONICA DE ARGENTINA S.A., TELECOMUNICACIONES INTERNACIONALES DE ARGENTINA – TELINTAR S.A., STARTEL S.A., COMPAÑÍA DE RADIOCOMUNICACIONES MÓVILES S.A., MINIPHONE S.A., TELECOM PERSONAL S.A., TELEFONICA COMUNICACIONES PERSONALES S.A., CTI COMPAÑÍA DE TELÉFONOS DEL INTERIOR S.A., CTI NORTE COMPAÑÍA DE TELÉFONOS DEL INTERIOR S.A., AT&T SERVICIOS DE COMUNICACIONES ARGENTINA S.A., M.C.I. ARGENTINA S.A., IMPSAT S.A., COMSAT S.A., ARGENTINE CABLE TELEVISION ASSOCIATION, ARGENTINE

**\* TRANSLATOR'S NOTE**

*The English version of this document is a translation from the original Spanish text in order to aid interested parties and users but does not constitute a formal binding document with legal consequences.*

AUDIOTEXT PROVIDERS CHAMBER, ARGENTINE DATABASE AND ONLINE SERVICES CHAMBER, TELECOMMUNICATIONS, ELECTRONICS AND INFORMATICS ENGINEERING PROFESSIONAL COUNCIL (COPITEC), CABLEVISIÓN – TCI S.A., VIDEOCABLE COMUNICACIÓN, MULTICANAL S.A., FEDERACIÓN DE COOPERATIVAS TELEFÓNICAS DEL SUR (FECOSUR), ARGENTINE CHAMBER OF INFORMATICS AND COMMUNICATIONS (CICOMRA), UNITED STATES OF AMERICA CHAMBER OF COMMERCE IN ARGENTINA, ARGENTINE SATELLITE APPLICATIONS CHAMBER (CADAS), RADIOMENSAJE S.A., RADIOLLAMADA S.A., MTEL S.A., BUENOS AIRES TRUNKING S.A., MAC CAW ARGENTINA S.A., CONECTEL S.A., NAHUELSAT S.A., and to all those companies interested in providing telecommunications services which require or will require signaling facilities, either presently or in the future.

That having received the filings by companies in the industry, a round of meetings with their representatives was set up, in order to clarify and add to the opinions previously manifested.

That taking into account the regulatory frame currently in force, the government's policy in this matter, and the comments and opinions collected, a Draft National Signaling Plan was drawn up.

That the aforementioned Draft Plan was made public and presented to the companies in the industry through Resolution SC N° 25845/96.

That the consulted companies were again called to participate by means of suggestions and objections to the Draft Plan.

That after such task was fulfilled this Department set up new meetings with the industry in order to discuss on the content of the aforementioned Draft Plan.

That within the framework of such discussion the intervening companies and corporate associations offered valuable opinions on the Draft National Signaling Plan.

That in view of the several meetings held between this Department and the private sector we understand consensus regarding rules for signaling between public networks has been reached.

That the telecommunications market requires coherent and sound Plans in order to promote productivity, technological innovation and growth in the industry.

That, in this respect, it should be noticed that the proposed National Signaling Plan is in keeping with a global change towards a telecommunications market with multiple services and providers, which has been the goal for the sector since the beginning of the deregulation process.

That the intention of this Resolution is to lay down clear and transparent rules to guarantee effective competition and prevent any form of disruption or abuse from dominant positions which may discourage new providers from entering the market, as well as to promote its growth and development.

That considering the foregoing explanation, having guaranteed transparency, publicity and the participation of stakeholders in the development of decisive rules for the telecommunications sector, it is appropriate for this Department to adopt the National Signaling Plan.

That this Department's Office of Legal Affairs has intervened as required.

That this measure is adopted as part of the powers vested in this Department by Decree N° 1620/96.

Thus,

THE COMMUNICATIONS SECRETARY

HEREBY DECIDES:

**SECTION 1°.** – The National Signaling Plan, which is part of this document as Annex I, is hereby adopted.

**SECTION 2°.** – Let it be recorded, known, published, given to the National Administration of the Official Registry, and filed.

**RESOLUTION SC N° 47**

# NATIONAL SIGNALING PLAN

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- III SIGNALING PROTOCOLS**
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## I INTRODUCTION

### I.1 Objectives

The objective of this National Signaling Plan (NSP) is to be a basis for the adequate use and management of national resources related to signaling among public telecommunications networks and to ensure their adequate interconnection, in the best interest of telecommunications services users and providers. The main criteria for this plan are the efficient and non-discriminatory distribution of available resources.

### I.2 NSP Background and Needs

Quick technological changes, together with the introduction of new services and future telecommunications competition and deregulation in the country, require the establishment of a general reference framework which guarantees telecommunications carriers interconnection of their networks. Towards that end, telecommunications carriers worked with the CNT in the drafting of specific documents: Channel-Associated Signaling System (digital version), Common Channel Signaling 7 and the Rule for Interoperation of CCS#7 and CASS (R2N).

### I.3 Current Situation

The main signaling system used today for network interconnection is Digital R2 (R2N). In-use Common Channel Signaling (CCS#7) is based on the ITU-T standards known as MTP and ISUP. For National Signaling Point Codes (NSPC) a 14-bit structure is used, and some of them are already being used by telecommunications carriers.

The ITU has allocated one 8-code block to Argentina for International Signaling Point Codes. Telintar, the only carrier currently authorized for international telephone traffic, uses 4 ISPC.

## **I.4 Considerations and Principles**

1. The National Signaling Plan (NSP) must offer an adequate capacity to unambiguously identify all Signaling Points, Signaling Transfer Points and Service Control Points requiring these codes in the national territory.
2. It must offer the flexibility and capacity necessary to satisfy future growth requirements.
3. It must offer stability from the point of view of telecommunications carriers and long periods without significant changes.
4. In an environment of growing competition, it must allow the allocation of codes without impairing the NSP as a whole.
5. It must be compatible with the related International Recommendations.
6. It must allow a fair and efficient management of codes.
7. The NSP and SPC shall at all times be considered a national resource; therefore their distribution does not entail their ownership. Their use will be determined by the management agency.

## II DEFINITIONS

### **Signaling Point Code ( SPC)**

Code which unambiguously identifies a Signaling Point in a common channel signaling network.

### **National Signaling Point Code ( NSPC)**

Code which unambiguously identifies a Signaling Point in a national common channel signaling network.

### **International Signaling Point Code ( ISPC)**

Code which unambiguously identifies a Signaling Point in an international common channel signaling network.

### **Number of A-party (ANI)**

Number which identifies the origin of a call.

### **Number of B-party**

Number which identifies the destination of a call.

### **International Number**

The International Number is made up of the Country Code followed by the National Number.

### **National Number**

Digit combination which identifies a customer within a particular country.

### **Signaling Protocol**

Combination of message exchange rules and mechanisms in the signaling network, which are necessary to control the functions within a telecommunications network and among several networks.

### **Signaling Point ( SP)**

Point in a signaling network which originates and receives signaling messages, or transfers signaling messages from link to link, or does both simultaneously.

### **Service Control Point ( SCP)**

Function or entity in the telecommunications network, which has access to data and logic in order to control the processing of a call.

### **Signaling Transfer Point ( STP)**

Signaling point with the function of transferring signaling messages from one signaling link to another, considered exclusively from the transferring point of view.

### **Signaling**

Information exchange mechanism between telecommunication network systems and equipment, necessary to set up, maintain, control, rate and bill communications between two or more customers or between a customer and a telecommunications service.

### III. SIGNALING PROTOCOLS

The Regulatory Authority suggests an open architecture in telecommunications carrier networks, in order to allow their interconnection. Should Regulatory Authority arbitration be required due to the lack of interconnection agreements, its decisions shall be based on the suggested protocols and architecture.

The signaling protocol suggested for interconnection between telecommunications carriers is R2N (digital version) through December 31, 1998.

Starting from January 1, 1999, the signaling protocol suggested for interconnection between telecommunications carriers is ISUP-CCS#7, without prejudice to the suggestion that those interconnection links operating at that moment should keep the same signaling through December 31, 2001.

The Regulatory Authority may in the future suggest other signaling methods and protocols, making its decision public two years before they come into force.

### IV. SIGNALING POINT CODES

#### IV.1. Introduction

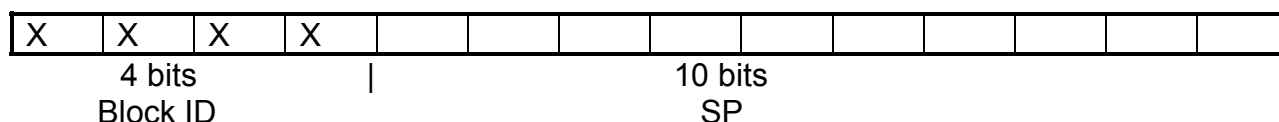
The global signaling network is structured in two independent functional levels: the international and the national level. Such structure allows a clear division of responsibilities for signaling network management, and makes it possible for national and international signaling point code distribution plans to be independent from each other.

#### IV.2. Length and Structure of National Signaling Point Codes (NSPC)

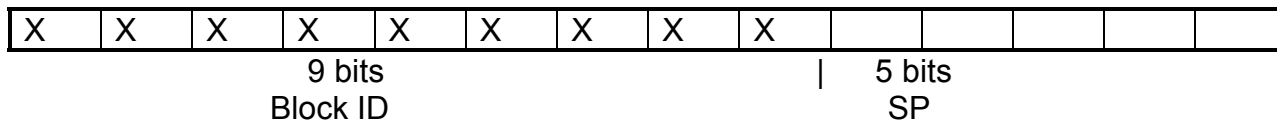
National signaling point codes ( NSPC) will use a 14-bit-long structure. In the long run, with a greater demand for new services and the growth of telecommunications networks, it may be necessary to revise the NSPC format, at which time an agreement including a migration plan will have to be established with carriers.

Three 14-bit structures are proposed:

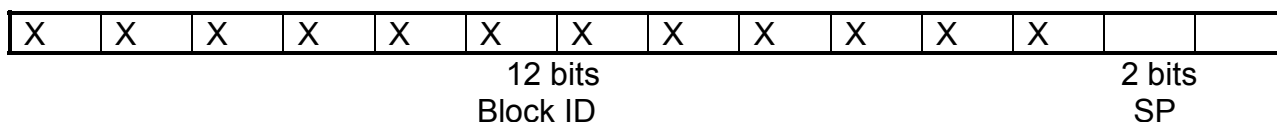
- a) A structure with 4 bits for block identification, allocated to telecommunications carriers with more than 500 exchanges currently operating; each structure with the capacity to internally allocate 1024 NSPC.



b) A structure with 9 bits for block identification and 32 internally assignable codes, corresponding to networks requiring more than 8 NSPC in a three-year period.



b) A structure with 12 bits for block identification and 4 internally assignable codes, corresponding in principle to networks requiring less than 4 NSPC in a three-year period.



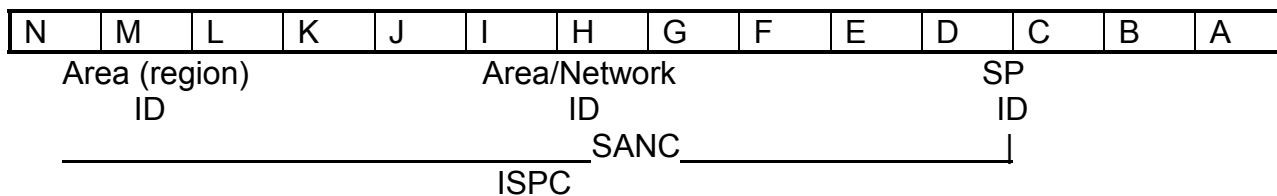
This definition of structures in three sizes allows great management flexibility and the efficient use of signaling point codes, since any carrier may, if he wishes, request additional blocks.

### IV.3. International Signaling Point Codes ( ISPC)

The format of international signaling point codes ( ISPC) and the guidelines for their distribution are described in the ITU-T Q.708 Recommendation.

The ISPC is 14-bits long and it is made up of a Signaling Area/Network Code (SANC), and the ID of the signaling point proper (3 bits). World management of SANC is the responsibility of the Telecommunications Standardization Bureau (TSB) of the International Telecommunications Union (ITU).

At the same time, the SANC is made up of a 3-bit geographic area/region ID and the 8-bit area/network identification code.



To date, Argentina has been allocated the SANC 7-044, which corresponds to 8 international signaling point codes.

## V. MANAGEMENT CRITERIA



## V.1 Principles

- The Regulatory Authority is responsible for managing the National Signaling Plan.
- The Regulatory Authority shall keep the nontransferable right of interpreting this NSP and solving all related disputes.
- The NSP administrator shall have the following functions and responsibilities:
  1. Allocating NSPC and notifying the carriers.
  2. Representing Argentina before the ITU and requesting SANC for ISPC.
  3. Allocating ISPC and notifying the carriers.
  4. Supervising and controlling NSP resources.
  5. Others related to the correct managing and implementation of the NSP.
- The NSP administrator will adopt a procedure through which to control its status in the country and address carriers' requests in a timely fashion.
- The NSP code groups are:
  - a) NSPC
  - b) ISPC allocated to Argentina

Each group has a different management procedure.

## V.2 Procedure for Allocating National Signaling Point Codes (NSPC)

Every telecommunications carrier with common channel signaling networks within the national territory may request NSPC.

Every telecommunications carrier requiring NSPC shall submit an application to the NSP administrator, including enough information to justify its requirements and its commitment to use the codes.

Once an NSPC block is allocated to a carrier, he shall manage its codes internally and may request additional blocks when he deems it necessary.

For block allocation, the following criteria will be taken into account.

- a) NSPC blocks will be allocated based on the criteria in IV.2.
- b) In the case that 90% of all NSPC is allocated, only the IV.2.c-type block allocation stage will be started.
- c) When all assignable blocks are used, the contingency stage starts, in which individual NSPC are allocated and there may be a revocation of NSPC allocations not in use, or not used for 2 months after the allocation.

The Administrator may allocate individual NSPC codes to those carriers requiring only one.

There will be an NSP information system with detailed information on NSPC (allocated, reserved and free) and on the carriers to which they are allocated. For this purpose, telecommunications carriers must notify the Administrator about the startup, modification or vacating of NSPC within a 30-day period after the fact.

The NSP Administrator shall have the right to verify the correct and timely use of allocated NSPC according to the type of service offered and the amount of equipment implemented.

In those cases where the coming into operation, modification or vacating of an NSPC affects or involves another carrier, the Administrator and the second carrier must be notified 2 months in advance in order to allow time for the other carriers to activate the new NSPC codes in their equipment.

Moreover, the maximum time elapsed between the allocation of a block and the coming into operation of at least one of its NSPC, must correspond to what the carrier expressed in the application, but must never be greater than one year.

### **V.3 Procedure for Allocating International Signaling Point Codes (ISPC)**

The NSP Administrator shall request the allocation of more SANC to Argentina, through the Regulatory Authority and before the relevant ITU agencies dealing with the world management of this resource.

Service providers requiring these codes must submit their requirements to the NSP Administrator, supporting their request with their respective expansion commitments and any other relevant information requested from the Regulatory Authority by the ITU.

The allocation of international signaling point codes will be carried out individually, as decided by the NSP Administrator.

The maximum time elapsed between the allocation of an ISPC and its coming into operation must not be greater than two years.

### **V.4 Revocation of SPC**

Telecommunications carriers who stop using one or more allocated SPC must notify the NSP Administrator accordingly. Moreover, the Administrator may revoke the allocation of blocks or SPC not in use, which will be available for allocation to other carriers.

## **VI. COMPLEMENTARY ASPECTS**

### **VI.1 Exchange of Information**

In addition to the information necessary to set up and release a call, the minimum suggested information to be exchanged in real time in network interconnection signaling shall be the following:

- Number of A-party (ANI) in national number suggested format.
- The category of "A-party", including at least: operator, payphone or regular subscriber.

- Number of B-party with a national or international number suggested format, as appropriate.
- The state of “B-party”, including at least: free subscriber, busy subscriber and answering (connection).

Furthermore, the information for call establishment in the ISUP protocol shall be sent in a block (all the information in the IAM message).

## **VI.2 The NSP Consulting Committee**

The NSP Consulting Committee will be created with the purpose of acting as a standing consulting body as regards the evolution and implementation of the Plan. This forum will be open to the whole telecommunications sector and will be chaired by a Regulatory Authority representative.